



5

10

15

Substitute specification

RECEIVED
MAR 1 0 2004
TECHNOLOGY CENTER R3700

APPARATUS FOR THE PRACTICE OF SOCCER IN A WHEELCHAIR

DESCRIPTION

5 SUBJECT OF THE INVENTION

The present invention refers to an apparatus that has been especially designed to permit individuals who are handicapped in wheelchairs to practice the sport of soccer.

10 The apparatus is therefore applicable to individuals with physical disabilities involving the partial or total immobility of the legs, who have to use wheelchairs, and makes it possible for them to play soccer using one hand or the other by means of a device which acts by controlling and impacting on the ball.

15 BACKGROUND OF THE INVENTION

As is well known, the practice of a variety of sports by the disabled is becoming increasingly widespread, and in the specific context of those who have to use a wheelchair a very high level has been attained in sports such as basketball, in which players' hands are essential for play.

20 This is not the case with the sport of soccer, given that it requires use of the legs and that this is made impossible by the specific disability suffered by these players.

To date there is no knowledge of any apparatus or device that would make it possible for those in
25 wheelchairs to play the sport of soccer.

DESCRIPTION OF THE INVENTION

The apparatus proposed by the invention satisfies this need, and makes it possible for any disabled
30 person with partial or total immobility of their legs to practice the sport of soccer, in a way that is clearly adapted to their disability.

To this end and more specifically, the apparatus consists of a body that is a fairly faithful reproduction of a human foot, up to the level corresponding to the upper limit of the top of the foot, in rounded
35 shapes, more specifically with concave sides to offer greater control of the ball without differentiating between a left or right foot, while the said body is joined at its upper and mid part by a short arm to a handle that is noticeably parallel to the axis of the body, in such a way that disabled individuals are able to use the apparatus with either hand to kick the ball, thereby replacing the use of their own feet.

The apparatus in itself is complemented by a support which, duly attached to a wheelchair, makes it possible for the disabled individual to have both hands free for those times when they are required to drive the wheelchair, while it is also possible to use the front of the said wheelchair to control the ball, which is finally impacted by the apparatus itself to perform any kind of manoeuvre such as control, passing, kicking with the toe or heel, etc. Although the apparatus may consist of a single piece, it has also been planned to have a structure consisting of a multiplicity of parts, thereby making it easier to manufacture, these being assembled and held together by means of rods and bolts.

As an item composed of one or multiple parts, it will preferentially be composed of strong lightweight materials.

DESCRIPTION OF THE DRAWINGS

To complement this description and with the aim of aiding greater comprehension of the nature of the invention, according to a preferential example of manufacture of the same, this description is accompanied, as an integral part of the same, by a set of drawings which show, as illustrations and not restrictively, the following:

Figure 1.- This shows a side view of apparatus for the practice of soccer in wheelchairs, made in the way specified by this invention.

Figure 2.- This shows a front view of the same apparatus.

Figure 3.- This shows a horizontal view.

Figure 4.- This shows another side view of the apparatus, in this case affixed to its corresponding support on a wheelchair.

Figure 5.- This shows a cross-section of the apparatus, according to the line of the cut shown by A-B in figure 2.

Figure 6.- Finally, this also shows a side view of a breakdown of the same apparatus.

PREFERRED EMBODIMENT OF THE INVENTION

In the light of the above-mentioned figures and more specifically numbers 1 to 3 of the same, it may be seen that the apparatus for practicing soccer in a wheelchair proposed by the invention has a structure having a body (1) made of any appropriate material, which as was pointed out above will preferentially be light and strong, and which is similar in terms of size and shape to a human foot, although it is symmetrical respecting an imaginary longitudinal and central vertical plane, with concavities in both sides (2) making it possible to control the ball perfectly using the apparatus with the right or left hand, without differentiation, to knock the ball using the sides or toe, top of the foot 2 or area of the heel 3.

From this base body (1) a central and upper short arm (5) emerges, which ends in a handle (6) that is noticeably parallel to the axis of the body (1), and which the disabled individual uses to hold the apparatus in his hand, enabling him to use the body (1) to knock the ball.

5 A support (7) which may be affixed to any bar on the side or front part of either side of a wheelchair (8), makes it possible for the player to have both hands free so that his upper limbs may be used to perform any type of movement with the wheelchair.

10 The apparatus may consist of a single part, or, as is shown in the drawings, may present a structure composed of multiple parts, in such a way that the body (1) has a lower base (10), and which is complemented by a top (2) and a heel (3), the top (2) being fixed to the heel (3) by a rod (11) and to the base (1) by another rod (11), while the heel (3) is affixed to the base (10) by a bolt (A) with its corresponding nut (B), the latter being embedded in the centre of the base (10), while the top (9) is
15 affixed to the base (10) by another bolt (14) that forms a part of the arm (5) and which has its corresponding nut (C), and the arm (5) is elongated and bent at the opposite end to the bolt (14), with another bolt (16) that passes lengthwise through the handle (6) and which in turn is held by its corresponding nut (17).

20 Nevertheless, this structure composed of multiple parts is merely an example, and it may be replaced by any other that is considered convenient, including single part executions as was stated above.

The handle (6) makes it possible for the player to securely grip the apparatus, in such a way that the upper end of the same functions as a lower extremity, and may be pointed in any direction, while the player's wrist functions as an ankle. As was pointed out above, the symmetrical configuration of the
25 body (1) makes it possible to control the direction of the ball and allows it to be used by left-handed as well as right-handed players, knocking balls with the front or inner side to drive them in the desired direction.